



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/747,002	12/22/2000	William B. Boyle	K35A0687	2942
26332	7590	09/13/2005	EXAMINER	
WESTERN DIGITAL CORP. 20511 LAKE FOREST DRIVE C205 - INTELLECTUAL PROPERTY DEPARTMENT LAKE FOREST, CA 92630			VENT, JAMIE J	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 09/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/747,002	BOYLE, WILLIAM B.	
	Examiner	Art Unit	
	Jamie Vent	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claim 17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto et al (US 6134384) in view of Morinaga et al (US 6792000).

[claim 17]

In regard to Claim 17, Okamoto et al discloses a method of storing information on a storage medium wherein each sector having a first integer of user data bytes the video data stream including a sequence of original transport packets, each original transport packet having a second integer of bytes, the second integer of bytes different from the first integer of user data bytes, wherein a third integer of original transport packets are storable in a fourth integer of sectors, the fourth integer being a minimum number of sectors with the same number of user data bytes as the number of bytes in the third integer of original transport packets (Figure 10 shows a detailed picture of the transport packet wherein the transport packets have various bytes of information as further described in Column 6 Lines 33-42), the method comprising:

- Receiving the sequence of original transport packets (Figure 1 shows the receiving of data streams via the input/output terminal 108);
- Adding a fifth integer of bytes to each original transport packet to create a sequence of modified transport packets, each modified transport packet having a sixth integer of bytes (Figure 10 illustrates the formats of clocks of a digital compressed video signal that is transmitted in a packet 188 byte and stored in the data recording area. Furthermore, a time stamp 25 of 4 bytes is added to the packet having a total of 192 bytes per packet thereby adding various integer of bytes to the original transport packets as further described in Column 6 Lines 33-42);
- Storing the sequence of modified transport packets wherein a seventh integer of modified transport packets are stored in an eighth integer of sectors, the eighth integer being a minimum number of sectors with the same number of user data bytes as the number of bytes in the seventh integer of modified transport packets, the eighth integer of sectors smaller than the fourth integer of sectors (Figure 16 shows memory 400 which stores the transport stream in which the memory stores packet data for the input/output terminal so that the packets correspond to the transport streams as further described in Column 9 Lines 25-36); however fails to disclose the storing video data stream on a hard disk drive for efficient, non-sequential access to the stored stream of video data, the HDD having

a plurality of sectors, each sector having a first integer of user data bytes,
the HDD having a plurality of sectors.

Morinaga et al discloses a data processing apparatus wherein transport streams are recorded onto various recording mediums. This is seen in Figure 1 and further described in Column 4 Lines 38+. Thereby making the storing of modified transport packets and the storing of these packets more accessible by storing the packets on a non-sequential access storage medium, hard disk. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the recording/reproducing apparatus, as disclosed by Okamoto et al and further incorporate a system that stores the transport packets onto a hard disk drive, as disclosed by Morinaga et al.

[claim 18]

In regard to Claim 18, Okamoto et al discloses the second integer of bytes is 188 (Figure 13 shows the packet with 188 bytes).

[claim 19]

In regard to Claim 19, Okamoto et al discloses a method wherein the fifth integer of bytes is four so that the sixth integer of bytes is 192 (Figure 14 the first and second predetermined number of bytes make a transport packer of 192 bytes).

[claim 20]

In regard to Claim 20, Okamoto et al discloses a method wherein the second integer of bytes is 188 and wherein the fifth integer of bytes is four so that each modified transport

Art Unit: 2616

packet has a length of 192 (Figure 13 and Figure 14 shows the second integer of bytes to be 188 while Figure 14 shows the fifth integer of bytes to have a length of 192 bytes).

[claims 21 & 22]

In regard to Claim 21, Okamoto et al discloses a method wherein the first integer of user data bytes is 512 and wherein the eighth integer of sectors is three (Column 7 Lines 39-56 describes the user data bytes).

[claim 23]

In regard to Claim 23, Okamoto et al discloses a method wherein each original transport packet includes synchronization bytes located at a beginning of each original transport packet and wherein the fifth integer of bytes is inserted behind the synchronization bytes (Figure 4a-4b shows the original packet with synchronization bytes wherein the data is added behind or in front of the bytes of information).

[claim 24]

In regard to Claim 24, Okamoto et al discloses a method wherein each original transport packet includes synchronization bytes located at a beginning of each original transport packet, and wherein the fifth integer of bytes is inserted behind the synchronization bytes (Figure 14 shows the fifth integer which is inserted behind the synchronization bytes).

[claim 25]

In regard to Claim 25, Okamoto et al discloses a method wherein passing each modified transport packet through a first buffer prior to storing on the storage medium (Figure 17 shows the buffer used before the transfer onto the storage medium).

[claim 26]

In regard to Claim 26, Okamoto et al discloses a system for storing video data for efficient non-sequential access to stored video data as previously disclosed in Claim 17; however fails to discloses the following limitations:

- A receiver configured to receive a stream of video data that includes a sequence of original transport packets, wherein each original transport packet has a first predetermined number of bytes

Morinaga et al discloses a data processing system wherein transport streams are recorded and reproduced. The audio/video data is entered into the system through a receiver as seen in Figure 1, wherein the transport packets are descrambled and identified as further described in Column 3 Lines 4-32. Thereby providing more input possibilities to the system and further identifying additional transport packets. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to use the recording/reproducing transport stream system, as disclosed by Okamoto and further incorporate a receiver to allow proper input of transport streams, as disclosed by Morinaga et al.

[claim 27]

In regard to Claim 27, Okamoto et al discloses a system wherein the second circuit configured to remove the second predetermined number of bytes from each modified transport packet retrieved (Figure 16 shows the removing of transport packet information from the error correction circuit as well as the packet output control circuit).

[claim 28]

Art Unit: 2616

In regard to Claim 28, Okamoto et al discloses a system wherein the predetermined number of bytes is 188 and wherein the second predetermined number of bytes is four so that the third number of bytes is 192 bytes (Figure 13 and Figure 14 shows the second integer of bytes to be 188 while Figure 14 shows the fifth integer of bytes to have a length of 192 bytes).

[claim 29]

In regard to Claim 39, Okamoto et al discloses a system wherein the predetermined number of user data bytes is 512, and wherein the second predetermined number of sectors is three (Column 7 Lines 39-56 describes the user data bytes).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamie Vent whose telephone number is 571-272-7384. The examiner can normally be reached on 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Groody can be reached on 571-272-7950. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jamie Vent
08/25/05


ROBERT CHEVALIER
PRIMARY EXAMINER